//TASK 1

a) hungry- Legal identifier

b) 2AB- Not a legal identifier as it starts with a number

c) 312.2- Not a legal identifier as it starts with a number

d) MOBILE- Legal identifier

e) "Ans"- Not a legal identifier as it starts with double quotation mark

f) $30- Legal identifier

g) Yes/No- Not a legal identifier as it contains slash sign

h) student-id- Not legal identifier as it contains hyphen

i) A+3- Not a legal identifier as it contains plus sign

j) 'X'- Not a legal identifier as it starts with single quotation mark

k) return- Not a legal identifier as it is a reserved keyword for java

//Task 2.1

public class Task2\_1 {

public static void main(String[] args) {

int x = 15;

System.out.println("The integer is "+x);

}

}

//Task 2.2

public class Task2\_2 {

public static void main(String[] args) {

int x = 15;

int y = 3;

int sum = x + y;

System.out.println("The sum is "+sum);

}

}

//Task 2.3

public class Task2\_3 {

public static void main(String[] args) {

int x = 15;

int y = 3;

int product = x \* y;

int division = x/y;

System.out.println("The result of multiplication is "+product);

System.out.println("The result of division is "+division);

}

}

//Task 2.4

public class Task2\_4 {

public static void main(String[] args) {

double x = 15.555d;

double y = 3.6666d;

double sum = x + y;

double product = x \* y;

double division = x/y;

System.out.println("The first integer is "+x);

System.out.println("The second integer is "+y);

System.out.println("The sum is "+sum);

System.out.println("The product is "+product);

System.out.println("The division is "+division);

}

}

//Task 2.5

public class Task2\_5 {

public static void main(String[] args) {

double x = 10.555d;

int y = 5;

double sum = x + y;

double product = x \* y;

double division = x/y;

System.out.println("The first integer is "+x);

System.out.println("The second integer is "+y);

System.out.println("The sum is "+sum);

System.out.println("The product is "+product);

System.out.println("The division is "+division);

}

}

// TASK 2.6

public class Task2\_6

{

public static void main(String[]args)

{

String str1 ="Faiaz ";

String str2 ="Ahmed";

int int1 =45;

System.out.println(str1);

System.out.println(str1 + str2);

System.out.println(int1 + str1);

System.out.println(str1 + int1);

}

}

//Task 3

public class Task3 {

public static void main(String[] args) {

int radius =4;

float pi = 3.1416f;

double circumference = 2\*pi\*radius;

double area = pi\*radius\*radius;

System.out.println("The circumference of the circle is " +circumference + " units.");

System.out.println("The area of the cirlce is " +area+ " square units.");

}

}

//Task 4

public class Task4 {

public static void main(String[] args) {

int x = 62534;

int y = x%100;

System.out.println("The last two digit of the integer is " +y);

}

}

// Task 5

public class Task5 {

public static void main(String[] args) {

double inches = 5656d;

double meters = inches \* 0.0254;

System.out.println("Given inches in meter = "+ meters);

}

}

// Task 6a

public class Task6a {

public static void main(String[] args) {

int x = 75;

int y = 20;

int z = x+y;

x = z - x;

y = z - y;

System.out.println("x = "+x);

System.out.println("y = "+y);

}

}

//Task 6b

public class Task6b {

public static void main(String[] args) {

int x = 75;

int y = 20;

x = x+y;

y = x-y;

x = x-y;

System.out.println("x = "+x);

System.out.println("y = "+y);

}

}

// Task 7

public class Task7 {

public static void main(String[] args) {

int minutes = 24101424;

int days = minutes/(24\*60);

int year = days/365;

int remaining\_days = days%365;

System.out.println(minutes + " minutes is approximately "+year+ " years and "+ remaining\_days+ " days.");

}

}

//Task 8

public class Task8 {

public static void main(String[] args) {

int x = 2;

int y = 5;

int z = 8;

int p = 2\*y\*((z-x)/3)+7;

System.out.println("The required value is " +p);

}

}

// TASK 9

public class Task9

{

public static void main(String[]args)

{

int n=5;

System.out.println("5x1= "+n\*1);

System.out.println("5x2= "+n\*2);

System.out.println("5x3= "+n\*3);

System.out.println("5x4= "+n\*4);

System.out.println("5x5= "+n\*5);

System.out.println("5x6= "+n\*6);

System.out.println("5x7= "+n\*7);

System.out.println("5x8= "+n\*8);

System.out.println("5x9= "+n\*9);

System.out.println("5x10= "+n\*10);

}

}

//Task 10

public class Task10 {

public static void main(String[] args) {

int a = 1;

int n = 100;

int L = 100;

int S = n/2\* (a+L);

System.out.println("The sum of first 100 positive numbers is "+S);

}

}

//Task 11

public class Task11 {

public static void main(String[] args) {

float a = 4.5f;

float b = 9.5f;

double c = Math.sqrt(Math.pow(a,2)+Math.pow(b,2));

double SinA = a/c;

double CosA = b/c;

double SinB = b/c;

double CosB = a/c;

System.out.println("Sin(A)="+SinA);

System.out.println("Cos(A)="+CosA);

System.out.println("Sin(B)="+SinB);

System.out.println("Cos(B)="+CosB);

}

}

//Task 12

public class Task12 {

public static void main(String[] args) {

int x = 24101424;

int y = x%10;

int z = x%100;

int p = z/10;

System.out.println(y);

System.out.println(p);

}

}

//Task 13

public class Task13 {

public static void main(String[] args) {

float hour = 5f;

float min = 56f;

float sec = 23f;

float total\_hours =(hour+ (min/60) + (sec/3600));

float last\_4\_digit = 1424f;

float kilometer = last\_4\_digit/1000;

float velo\_kilometer = kilometer/total\_hours;

float miles = last\_4\_digit/1609f;

float velo\_mile = miles/total\_hours;

System.out.println("My velocity in km/h is "+ velo\_kilometer);

System.out.println("My velocity in miles/h is "+ velo\_mile);

}

}

//Task 14

public class Task14 {

public static void main(String[] args) {

int a = 8;

int b = 3;

int c = (a/2);

double side = Math.sqrt(c\*c+b\*b);

double area = ((3\*Math.sqrt(3))/2)\*side\*side;

double circumference = 6 \* side;

System.out.println("The area of the hexagon is "+area+" square units");

System.out.println("The circumference of the hexagon is " +circumference+" unit");

}

}